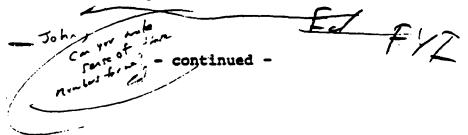
		-		· · · · · · · · · · · · · · · · · · ·			
3	MCB Benze  Douct  onochlorobenzene	ne Reduct	ion 3	O e C			80 2
$\overline{}$	COST ELEMENT SK	CAPITAL :	EXPENSE	7	VARIANCE CLASS	FICATION	
	EXPENDED	545	21		PROJECT SCOPE    14204    PROCESS PREMISES   SITE PREMISES    STE PREMISES   PREMISES		
	COMMITTED	274	0	1			
	ESTIMATE TO COMPLETE	3,081	439	. ]			
	PENDING VARIANCES	0.	0				
	THIS VARIANCE	315	53 .				
	UNDEVELOPED CESIGN	0	0	TOTAL VARIANCE SUMMARY (INCLUDING THIS ONE)			
NEW ESTIMATED FINAL COST		4,215	513	1	UMBER OF	COST TO CATE	
AR ESTIMATE		3,900	330		ARIANCES	CAPITAL	EXPENSE
	(OVER)/UNDER RUN	(315)	(183)	1	SUM OF PROJECT SCOPE. PROCESS PREMISES, AND SITE PREMISES VARIANCES	0	0
CONTINGENCY BEFORE		332	90	<del> </del>	SUM OF DESIGN & CONSTR.	<u>                                     </u>	
CONTINGENCY AFTER		350	93	)2	PACTORS AND ESTIMATING FACTORS VARIANCES	+315	+183

DESCRIPTION, JUSTIFICATION, ERFECT ON PROJECT SCHEDULE, COST

This project provides facilities (1) to insure compliance with OSHA regulations on airborne benzene and (2) to reduce the discharge of flammable organics to the plant sewer.

escription: This variance seeks approval of (1) a definition change to replace rather than modify an existing sewer box system, (2) an estimate update for a list of items resulting from definitive design.



APPROVAL	AS INDICA	TED	DISTRIBUTION	
TITLE & NAME.	NOTED	IMPROVED	DATE	To Those Approving And:
PROJECT Management	1	1		W.B. Hicks - G4NA
J.J. Seidel/J.O. Fright	- F4EB			R.M. Kountz - F4EA
manager, engin <b>eering</b> R. Lee - Fili <b>b</b>	i	1 1		1
	<del></del>	<del>-}</del>		C.F. Luecke - F4EA
DIRECTOR, ENGINEERING L.D. Shaver- F4WA	1	i 1		G.A. Francis - F2WD
DIRECTOR OF CED	<del></del>	<del></del>		W.E. Scruggs - F4EA
A.W. Andrews - F4EA	!	.! i		J.O. Stenborg - FIEA
	<del></del>			
J.W. Molloy - 1740	•	i j		R.L. Wiese - F4WA
		1		E.B. Peck - F4EF
E.N. Brasfield - G4NE	<u> </u>			K.P. Winkler- FlWE
	1	i		W.B. Papageorge - GAWA
	<u>!</u>	<u> </u>		J.C. Peduzzi - 1740
	<b>i</b>	1		l'
	<del></del>			J.F. Thompson - G4NK
	1	1 1		W.W. Varnado - G4NK

CE-136 Rev. 7/75

CER 090445

CONFIDENTIAL 92-CY-204-WDS

Project Variance No.2 CEA 3322 Page 2

Justification: 1. Definitive design revealed that project work on the two existing sewer boxes, per the approved definition, would increase capital by \$23k. In addition, maintenance access would be restricted. Plant and CED personnel recom- mend abandoning the existing sewer boxes and building one new box in a different location. This adds an additional \$23k to capital. Existing access will be maintained. Project construction will be simplified, with less sewer box downtime. Design is proceeding on the new sewer box.	\$k Capital +46	\$k Expense +10
<ol> <li>Actual process <u>design</u> hours exceeded the estimate primarily due to resolving problems in the waste water system.</li> </ol>	+28	30
<ul> <li>3. Design of area sewers and underground process drain piping resulted in higher estimated cost due to:</li> <li>a. 150 additional feet of sewer.</li> <li>b. underground lines deeper than assumed in the approved estimate.</li> <li>c. 100% hand excavation required vs 70% assume in the approved estimate.</li> <li>d. 50% more existing paving removed and later replaced due to necessary excavation.</li> <li>No less costly alternates are known which woul still achieve the committed project results.</li> </ul>	d.	+43
4. Approved engineering flow diagrams resulted in about 1100 ft. of additional piping not in the approved estimate.		0
5. Design produced miscellaneous other estimate changes including a \$19k increase in the pavin estimate and a \$28k increase due to the actual cost of the separate pit cover/pump support.		0
Total Variance	+315	+53

CER 090446

Project Variance No.2 CEA 3322 Page 3

Effect on Project Schedule: At this time no change in project completion date is expected. However, the above list of changes (in particular the sewer and underground piping increase) do represent significant additional field work and a potential mechanical completion delay. This will be resolved when detailed construction schedules are prepared in the summer of 1981. If necessary, a schedule variance will be submitted at that time.

Effect on Project Cost: Project capital is increased by \$315k and expense is increased by \$53k by a list of design and construction factors as described above.

J.R. Love

/8

CER 090447